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Declarations under Rule 4.17:

— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE,*

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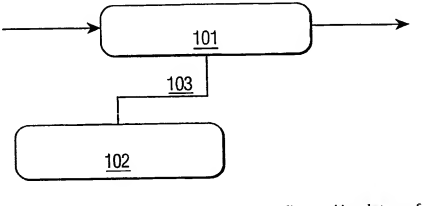
(54) Title: METHOD AND APPARATUS FOR SMOOTHING OVERALL QUALITY OF VIDEO TRANSPORTED OVER A WIRELESS MEDIUM



(57) Abstract: A system and method for controlling a scalable video application by modeling it as a Markov decision process. The model is based on measuring the relative progress of the application, where relative progress is the difference between the allocated CPU budget for processing a frame and the actual CPU cycles used in processing a frame. The control strategy is based on the number of levels most recently decoded and the maximum levels that can be decoded for the next frame based on the number of received layers (the maximum quality level) and the budgeted CPU time. The object is to smooth quality transitions between frames by developing a quality level control strategy that minimizes both the number of deadline misses (frame not fully decoded) and the number of quality level changes, while maximizing the quality level. The fewer the number of quality level changes, the smoother the image viewed.

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